

CORRECTED VERSION

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- (75) Inventor/Applicant (*for US only*): NOUTARY, Carole [FR/GB]; Lloyd House, 19 Lloyd Road, Broadstairs, Kent CT10 1HZ (GB).
- (15) Information about Corrections:
see PCT Gazette No. 35/2004 of 26 August 2004, Section II
Previous Correction:
see PCT Gazette No. 14/2004 of 1 April 2004, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/005412 A3

(54) Title: PRINTING INK FOR INK-JET PRINTING

(57) Abstract: This invention relates to inks for use in ink-jet printers that are cured using ultraviolet radiation. Specifically, the present invention relates to an ink-jet ink which is substantially free of water, volatile organic solvents and multifunctional (meth)acrylates, comprising at least one monofunctional (meth)acrylate monomer, at least one α,β -unsaturated ether monomer, at least one radical photoinitiator and at least one colouring agent, the ink having a viscosity of less than 50 mPas at 25°C. This provides extra-low viscosity inks, which still meet the requirements for printing onto porous substrates such as paper and board.

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference REG/G19214W0	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/GB 03/ 02954	International filing date (<i>day/month/year</i>) 08/07/2003	(Earliest) Priority Date (<i>day/month/year</i>) 09/07/2002
Applicant SERICOL LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of **03** sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

- the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :
- contained in the international application in written form.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority in written form.
 - furnished subsequently to this Authority in computer readable form.
 - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. Certain claims were found unsearchable (See Box I).
3. Unity of invention is lacking (see Box II).

4. With regard to the **title**,

- the text is approved as submitted by the applicant.
 the text has been established by this Authority to read as follows:

PRINTING INK FOR INK-JET PRINTING

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant.
 the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

- as suggested by the applicant.
 because the applicant failed to suggest a figure.
 because this figure better characterizes the invention.

None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 03/02954

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C09D11/00 C09D11/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C09D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	WO 02 061001 A (SERICOL LTD ;NOUTARY CAROLE (GB)) 8 August 2002 (2002-08-08) cited in the application * whole document * ---	1-14
A	EP 0 997 508 A (AGFA GEVAERT) 3 May 2000 (2000-05-03) claims 1-7 ---	1-14
A	WO 00 31189 A (SUN CHEMICAL CORP) 2 June 2000 (2000-06-02) page 2, line 12 - line 19 page 6, line 16 - line 39 page 12, line 25 -page 17, line 22 ---	1-14

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *8* document member of the same patent family

Date of the actual completion of the international search 7 October 2003	Date of mailing of the international search report 14/10/2003
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016	Authorized officer Marsitzky, D

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 03/02954

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 02061001	A	08-08-2002	GB WO	2371551 A 02061001 A1	31-07-2002 08-08-2002
EP 0997508	A	03-05-2000	EP US	0997508 A1 6310115 B1	03-05-2000 30-10-2001
WO 0031189	A	02-06-2000	CA EP WO US	2351472 A1 1133533 A1 0031189 A1 2002068772 A1	02-06-2000 19-09-2001 02-06-2000 06-06-2002